Check List 8(1): 016-022, 2012
© 2012 Check List and Authors
ISSN 1809-127X (available at *www.checklist.org.br*)

Check List
Journal of species lists and distribution

LISTS OF SPECIES

Squamate Reptiles of the central Chapada Diamantina, with a focus on the municipality of Mucugê, state of Bahia, Brazil

Marco Antonio de Freitas [1*], Diogo Veríssimo [2] and Vivian Uhlig [3]

1 Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio). Rua da Maria da Anunciação n 208, Eldorado. CEP 69932-000. Brasiléia, AC, Brazil.
2 University of Kent, Durrell Institute of Conservation and Ecology. CT2 7NR, Canterbury, Kent, UK.
3 Centro Nacional de Pesquisa e Conservação de Répteis e Anfíbios – RAN/ICMBio. Rua 229, nº 95, Setor Leste Universitário. CEP 74605-090. Goiânia, GO, Brazil.
* Corresponding author. E-mail: *philodryas@hotmail.com*

ABSTRACT: We present the first species list of squamate reptiles for the central region of the Chapada Diamantina, with a focus on the municipality of Mucugê, state of Bahia Brazil. The data provided were mostly collected in the Caraíbas estate, during vegetation clearing operations for agriculture. The remnant records were collected from roadkills encountered in Mucugê and neighboring municipalities. We found 64 species of squamate reptiles including 35 species of snakes, 25 of lizards and four of amphisbaenians. These records have already yielded three species descriptions with others likely to follow. This is evidence of the poorly documented herpetological diversity of the Chapada Diamantina. The present work highlights the need for further research and the potential of less traditional data sources such as roadkills to improve the knowledge of the herpetofauna of extensive and megadiverse countries like Brazil.

INTRODUCTION

The Chapada Diamantina, the local name of the northern segment of the Serra do Espinhaço mountain ridge, is a mountainous region located within the Caating biome, crossing the state of Bahia from north to south (Ab`Saber 1977). Although dominated by semi-arid environments, the Chapada Diamantina has a wide range of ecosystems, a result of the topographic diversity, the distribution of water sources and drainages, and the present and past contacts with the Cerrado, Caatinga and the Atlantic Forest biomes (Queiroz *et al.* 2008).

The Chapada Diamantina has been targeted by a few studies of its flora (*e.g.* Queiroz *et al.* 2008; Giulietti and Wanderley 1995), insects (*e.g.* Lopes and Louzada 2008), mammals (*e.g.* Oliveira and Pessôa 2005), fish (e.g. Santos and Caramaschi 2008) and birds, which have had the most consistent surveying (*e.g.* Carvalhaes and Machado 2008). Nonetheless, its biodiversity remains greatly unknown, which explains its selection as a priority area for research on biodiversity in Brazil (Rodrigues 2003).

The herpetofauna of the Chapada Diamantina has only recently received attention from the scientific community, with a few surveys attempting to document the reptile and amphibian species present in the region. These studies have resulted in the description of several new species (Freitas 1999; Argôlo and Freitas 2000, 2002; Juncá 2005; Rodrigues *et al.* 2006, 2009a, b; Freitas *et al*. 2007a, b, 2010; Lugli and Juncá 2008; Mott *et al.* 2008).

MATERIAL AND METHODS

Study site

The majority of the records were gathered at the Caraíbas estate (13°09' S, 41°24' W), district of Cascavel, municipality of Mucugê, state of Bahia, northeastern Brazil (Figure 1). This 5200 ha estate is situated on a relatively flat upland plateau, at around 1100 m altitude, on the west side of the escarpments of the Serra do Sincorá, a section of Chapada Diamantina (Rodrigues *et al.* 2006). The vegetation of the estate includes semi-decidual seasonal forest (locally known as carrasco) and gallery forest along the river valleys (Rodrigues *et al.* 2006). The remaining records were gathered opportunistically from roadkills found along the BA 142 and BR 242 roads, in the municipalities of Mucugê, Andaraí, Lençóis, Ibicoara and Palmeiras.

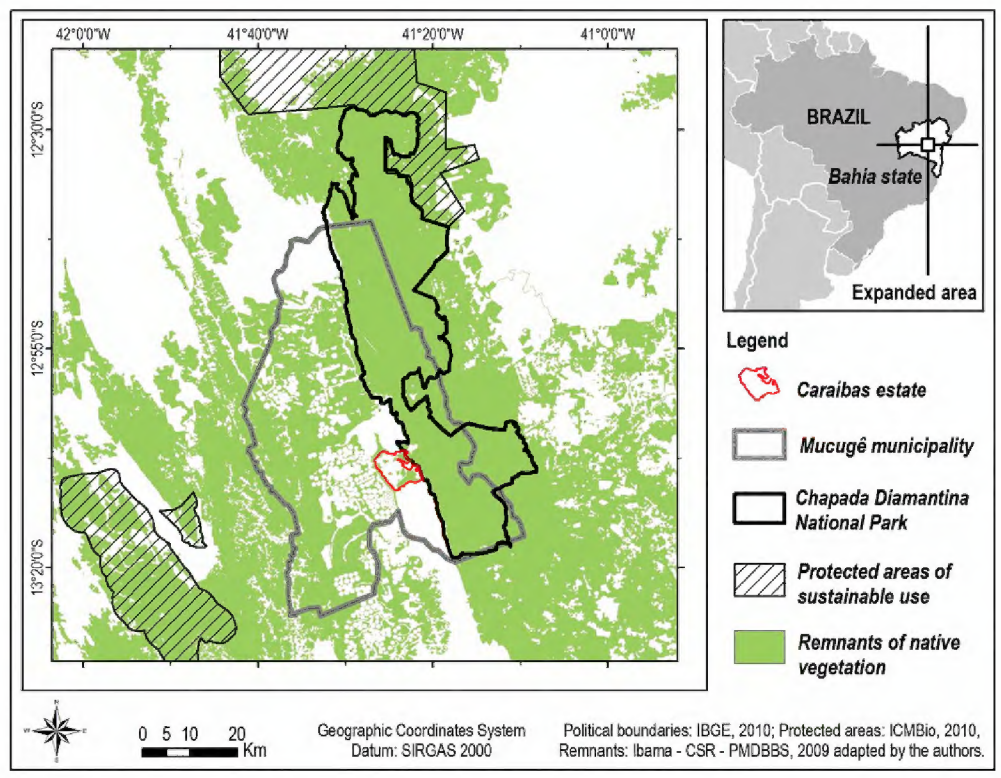

FIGURE 1. Location of the Caraíbas estate, municipality of Mucugê, state of Bahia Brazil.

Data collection

Data collection for the present study began opportunistically in 2000, mostly through records of

snakes found as roadkills when the authors traveled through the region as part of consultancy work. This work was intensified from November 2004 to October 2008 through the fauna inventories conducted as part of the legally imposed mitigation measures for vegetation clearing, associated with land use changes in the Caraíbas estate, namely agriculture. At these field sites, the team followed the machinery clearing the vegetation to inventory the fauna being displaced during the process or killed by it. The surveys were conducted yearly by a team of 10 people, for approximately eight daily hours and for periods of 10 days at each stage of vegetation clearing. This totalizes a minimum of 32,000 man hours of survey effort. The surveys accompanied the clearing of 240 ha per year of native vegetation from 2005 to 2008, leading to a total of 960 ha. During these surveys 820 vertebrates were found, 74% of which were reptiles. From these individuals a proportion of those thought to represent undescribed species or otherwise relevant records were collected (NUFAU/IBAMA 021/2005), initially preserved in 10% formalin and afterwards moved to 70% alcohol. The specimens found as roadkills (IN-154/2007/IBAMA art–26) were initially preserved in 20% formalin and then moved to 70% alcohol. All the specimens were deposited in six referenced collections: the Zoology Museum of the São Paulo University (MZUSP), Zoology Museum of the Santa Cruz State University (MZUESC), Gregório Bondar Zoological Collection (CZGB), Laboratory of Venomous animals and Herpetology of the Feira de Santana State University (LAPH/UEFS), Science Museum of the Pontifical Catholic University of Porto Alegre (MCP), Zoology Museum of the Bahia Federal University (MZUFBA). For the species that were recorded during the surveys but for which it was not possible to collect any specimens, we used the relevant literature to provide support for their presence in the study area.

Results and Discussion

We recorded 64 species of squamate reptiles, belonging to 45 genera and 17 families. Snakes accounted for 35 species, 27 genera and six families, lizards for 25 species, 18 genera and 10 families, while amphisbaenians accounted for four species in a single genus (Table 1).

The work from which this species list originated has greatly contributed to increase the knowledge of the herpetofauna in the Chapada Diamantina region. Three species have already been described based on specimens collected during this research: the amphisbenian *Amphisbaena uroxena* (Figure 2A) and the lizards *Heterodactylus septentrionalis* (Figure 2B), *Acratosaura spinosa* (Figure 2C) and *Enyalius erythroceneus* (Figure 2D). Furthermore, it is possible that the lizards *Psilophtalmus* sp. (Figure 3A), *Mabuya* sp. (Figure 3B) and *Eurolophosaurus* sp. (Figure 3C), and the snakes *Chironius* aff. *flavolineatus* (Figure 3D), *Tantilla* sp. (Figure 3E) and *Taeniophallus* gr. *occipitalis* (Figure 3F), are also undescribed species (Dixon *et al.* 1993; Adriano. Lima pers. comm. 2010; Alfredo Jr pers. comm. 2010; Freitas 2011). Further studies will be needed to assess the taxonomy of these groups and their geographic distribution and conservation status.

The present work extends the geographic distribution of the snake *Trilepida koppesi* (Figure 3G) to the northeast of Brazil and the distribution of the snakes *Sibynomorphus neuwiedi* (Figure 3H), *Siphlophis leucocephalus* (Figure 4A), *Oxyrhopus guibei* (Figure 4B) and *Philodryas patagoniensis* (Figure 4C) to the Chapada Diamantina (Freitas and Silva 2007). For this last species this is also the record furthest away from the coast (Freitas 1999; Freitas 2003; Juncá 2005; Lugli and Juncá 2008). Also worth mentioning are the second record for the northeast of Brazil of the snake *Chironius quadricarinatus* (Figure 4D), and the third record for that same region of the snake *Philodryas aestiva* (Figure 4E) (Argôlo 1998; Argôlo and Freitas 2002).

This species list also contains records of the narrowly distributed lizards *Gymnodactylus vanzolinii* (Figure 4F), a recently described species, and *Tropidurus mucujensis* (Figure 4G), both of which are yet to be recorded outside the Mucugê municipality (Rodrigues 1987; Cassimiro and Rodrigues 2009). Finally, this species list also presents the highest altitude recorded for the snake *Bothropoides erythromelas* (Figure 4H), at 1100 m above sea level.

Having basic knowledge of the vertebrate species composition for a given area is crucial if effective conservation strategies are to be designed (Heyer *et al.* 1994). The number of endemic species and the number of recently described species along with the high probability that other species remain undescribed, support the need for further research on the herpetofauna of the Chapada Diamantina.

In this light, the inventory of the squamate reptiles of the central Chapada Diamantina is an important contribution not only to the knowledge of the region biodiversity but also to its sustainable management. The focus on Mucugê is important given that this municipality makes up more than 60% of the Chapada Diamantina National Park, a conservation unit for which detailed information on herpetofauna is scarce. Nonetheless, it is also important that further attention is devoted to the management of the areas outside protected areas, as the pressure for land use change, namely for agriculture, is increasing.

Finally, this work, the first publication using data collected during fauna inventories undertaken as part of the mitigation measures imposed by the ICMBio, highlights how this and other (e.g. roadkills) less traditional data sources can provide important information on the herpetofauna of a region. The use of these sources could prove to be a cost-effective complement to more traditional survey methods, something of special importance especially in the case of megadiverse countries like Brazil where large areas are yet to be studied and little is known about many species (Freitas *et al.* 2011).

Table 1. List of Squamate reptiles of the central Chapada Diamantina with a focus on the minicipality of Mucugê, state of Bahia, Brazil.

TAXA	TYPE OF RECORD
Amphisbaenidae	
Amphisbaena alba Linnaeus, 1758	Collected specimen
Amphisbaena pretrei Duméril and Bibron, 1839	Collected specimen
Amphisbaena sp.	Lugli and Juncá (2008)
Amphisbaena uroxena Mott, Rodrigues, Freitas and Silva 2008	Collected specimen
Gymnophthalmidae	
Acratosaura mentalis (Amaral, 1933)	Collected specimen
Acratosaura spinosa Rodrigues, Cassimiro, Freitas and Silva, 2009	Collected specimen
Heterodactylus septentrionalis Rodrigues, Freitas and Silva, 2009	Collected specimen
Micrablepharus maximiliani (Reinhardt and Luetken, 1862)	Lugli and Juncá (2008)
Psilophtalmus sp.	Collected specimen
Sphaerodactylidae	
Coleodactylus meridionalis (Boulenger, 1888)	Lugli and Juncá (2008)
Phyllodactylidae	
Gymnodactylus vanzolinii Cassimiro and Rodrigues, 2009	Cassimiro and Rodrigues (2009)
Phyllopezus pollicaris (Spix, 1825)	Lugli and Juncá (2008)
Gekkonidae	
Hemidactylus brasilianus (Amaral, 1935)	Collected specimen
Hemidactylus mabouia (Moreau de Jonès, 1818)	Lugli and Juncá (2008)
Leiosauridae	
Enyalius bibroni Boulenger, 1855	Lugli and Juncá (2008)
Enyalius erythroceneus Rodrigues, Freitas, Silva and Bertolotto, 2006	Collected specimen
Polychrotidae	
Polychrus acutirostris Spix, 1825	Collected specimen
Scincidae	
Mabuya aff. *dorsivittata* Cope, 1862	Lugli and Juncá (2008)
Mabuya heathi	Collected specimen
Mabuya sp.	Collected specimen
Teiidae	
Ameiva ameiva (Linnaeus, 1758)	Collected specimen
Cnemidophorus ocellifer (Spix, 1825)	Collected specimen
Tupinambis merianae (Duméril and Bibrons, 1839)	Lugli and Juncá (2008)
Tropiduridae	
Eurolophosaurus sp.	Collected specimen
Tropidurus cocorobensis (Rodrigues, 1987)	Juncá (2005)
Tropidurus hispidus (Spix, 1825)	Collected specimen
Tropidurus mucujensis Rodrigues, 1987	Rodrigues (1987)
Tropidurus semitaeniatus (Spix, 1825)	Lugli and Juncá (2008)
Anguidae	
Ophiodes sp.	Juncá, 2005
Leptotyphlopidae	
Epictia borapeliotes (Vanzolini, 1996)	Collected specimen
Trilepida koppesi (Amaral, 1955)	Collected specimen
Boidae	
Boa constrictor (Linnaeus, 1758)	Collected specimen
Epicrates assisi Machado, 1945	Collected specimen
Colubridae	
Chironius aff. *flavolineatus*	Collected specimen
Chironius quadricarinatus (Boie, 1824)	Collected specimen
Drymarchon corais (Boie, 1827)	Collected specimen
Oxybelis aeneus (Wagler, 1824)	Collected specimen
Spilotes pullatus (Linnaeus, 1758)	Collected specimen
Tantilla sp.	Collected specimen
Dipsadidae	
Apostolepis cearensis Gomes, 1915	Collected specimen

TABLE 1. ***CONTINUED.***

TAXA	TYPE OF RECORD
Boiruna sertaneja Zaher, 1996	Collected specimen
Leptodeira annulata (Linnaeus, 1758)	Juncá (2005)
Liophis maryellenae Dixon, 1985	Collected specimen
Liophis poecilogyrus (Wied, 1825)	Collected specimen
Liophis viridis (Günther, 1862)	Juncá (2005)
Oxyrhopus guibei Hoge and Romano, 1978	Collected specimen
Oxyrhopus trigeminus Dumeril, Bibron and Dumeril, 1854	Collected specimen
Oxyrhopus rhombifer Dumeril, Bibron and Dumeril, 1854	Collected specimen
Philodryas aestiva (Duméril, Bibron and Dumeril, 1854)	Collected specimen
Philodryas olfersii (Lichtenstein, 1823)	Collected specimen
Philodryas patagoniensis (Girard, 1858)	Collected specimen
Phimophis guerini (Duméril, Bibron and Dumeril, 1854)	Juncá (2005)
Pseudoboa nigra (Duméril, Bibron and Dumeril, 1854)	Collected specimen
Sibynomorphus neuwiedi (Ihering, 1911)	Collected specimen
Siphlophis leucocephalus (Gunther, 1863)	Collected specimen
Taeniophallus gr. *occipitalis*	Collected specimen
Thamnodynastes sp.	Collected specimen
Tropidodryas striaticeps (Cope, 1869)	Collected specimen
Xenodon merremii (Wagler, 1824)	Collected specimen
ELAPIDAE	
Micrurus sp.	Collected specimen
VIPERIDAE	
Bothropoides erythromelas (Miranda-Ribeira, 1915)	Collected specimen
Bothropoides jararaca (Wied, 1824)	Collected specimen
Bothrops leucurus Wagler, 1824	Collected specimen
Crotalus durissus Linnaeus, 1758	Collected specimen

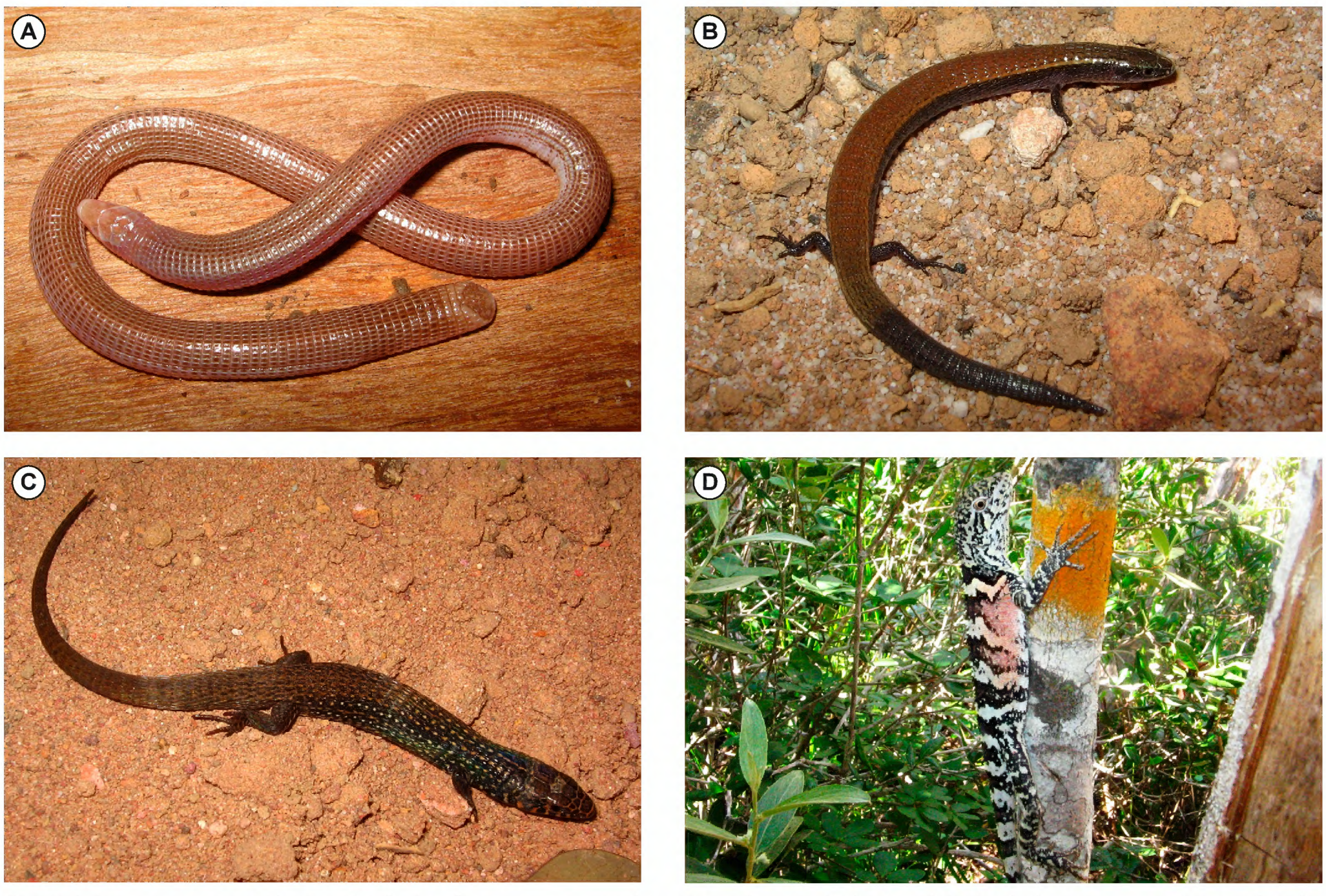

FIGURE 2. Some squamate reptiles found in the Caraíbas estate, municipality of Mucugê, state of Bahia Brazil: A) *Amphisbaena uroxena*; B) *Heterodactylus septentrionalis*; C) *Acratosaura spinosa*; D) *Enyalius erythroceneus*.

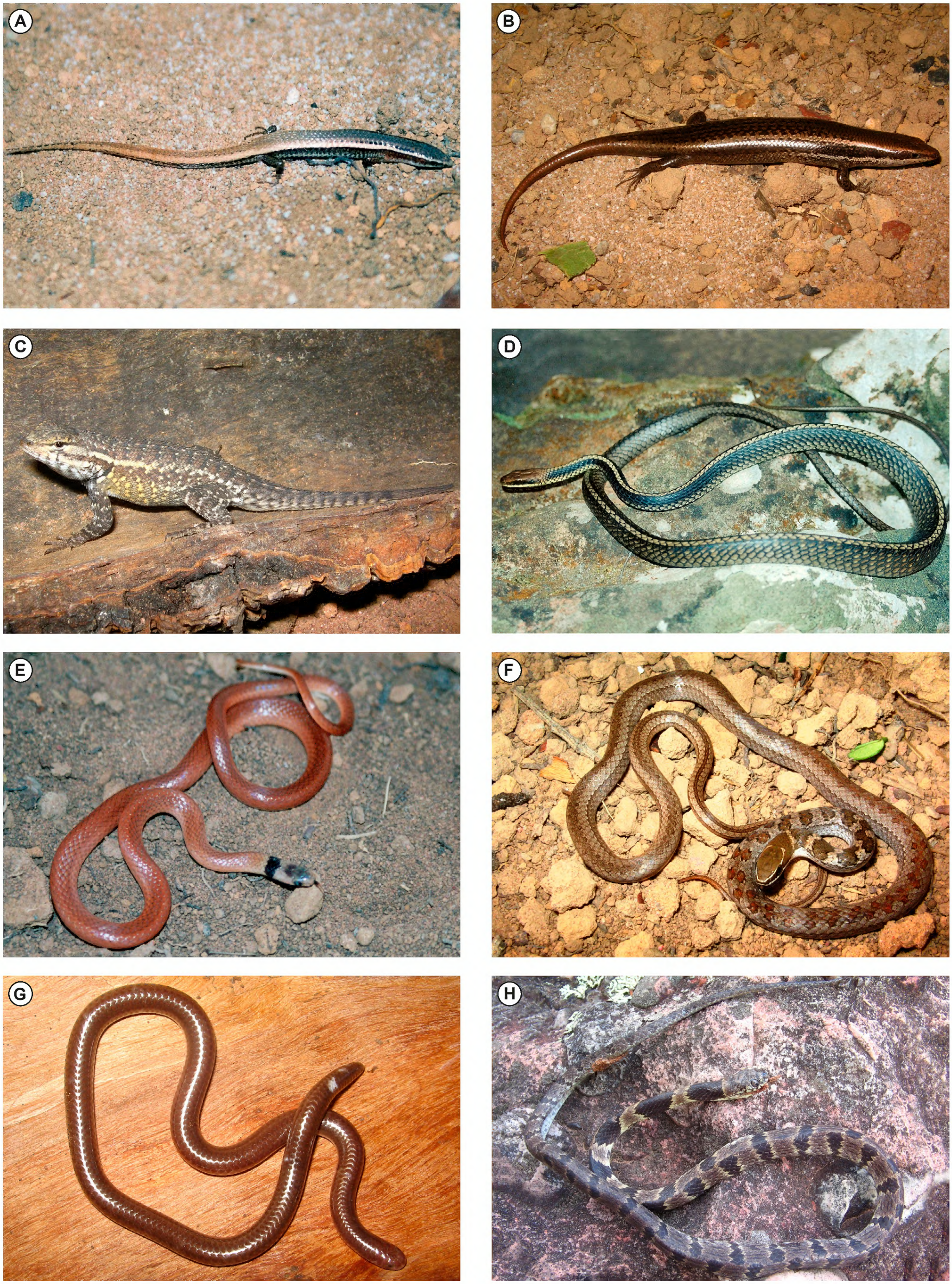

Figure 3. Some squamate reptiles found in the Caraíbas estate, municipality of Mucugê, state of Bahia Brazil: A) *Psilophtalmus* sp.; B) *Mabuya* sp.; C) *Eurolophosaurus* sp.; D) *Chironius* aff. *flavolineatus*; E) *Tantilla* sp.; F) *Taeniophallus* gr. *occipitalis*; G) *Trilepida koppesi*; H) *Sibynomorphus neuwiedi*.

FIGURE 4. Some squamate reptiles found in the Caraíbas estate, municipality of Mucugê, state of Bahia Brazil: A) *Siphlophis leucocephalus*; B) *Oxyrhopus guibei*; C) *Philodryas patagoniensis*; D) *Chironius quadricarinatus*; E) *Philodryas aestiva*; F) *Gymnodactylus vanzolinii* (Photo by M.Rodrigues); G) *Tropidurus mucujensis*; H) *Bothropoides erythromelas.*

Acknowledgments: We would like to thank Miguel Rodrigues (University of São Paulo) for commenting a previous version of the manuscript, Eduardo Varejão for facilitating the access to the Caraíba estate, the managers of the Chapada Diamantina National Park for the institutional support provided throughout the different stages of the fieldwork, the NUFAU/IBAMA team of Salvador da Bahia for expediting the issue of the collection permits. Finally, we would like to thank the following museum curators: Hussam Zaher, Zoology Museum of the São Paulo University; Antonio Jorge Suzart Argôlo, Zoology Museum of the Santa Cruz State University and Gregório Bondar Zoological Collection, part of the special commission for cocoa farming; Flora Acunã Juncá, Laboratory of Venenous animals and Herpetology of the Feira de Santana State University; Gláucia Maria Funk Pontes, Science Museum of the Pontifical Catholic University of Porto Alegre; Rejane Maria Lira da Silva, Zoology Museum of the Bahia Federal University.

Literature Cited

Ab'Sáber, A.N. 1977. Os domínios morfoclimáticos da América do Sul. Primeira aproximação. *Geomorfologia* 52: 1-52.

Argôlo, A.J.S. 1998. Geographic Distribution *Chironius quadricarinatus*, Canavieiras, Bahia, Brasil. *Herpetological Review* 32(3): 175.

Argôlo, A.J.S. and M.A. Freitas. 2000. Geographic Distribution *Oxyrhopus rhombifer rhombifer*. *Herpetological Review* 31(1): 57-58.

Argôlo, A.J.S. and M.A. Freitas. 2002. Geographic Distribution *Philodryas aestivus*. *Herpetological Review* 33(3): 229-230.

Carvalhaes, A. and C.G. Machado. 2008. As aves da Chapada Diamantina; p. 103-127. *In* L.S. Funch, R.R. Funch, L.P. Queiroz (ed.). *Serra do Sincorá, Parque nacional da Chapada Diamantina*. Feira de Santana: ED-Radami..

Dixon, J.R., J.A. Wiest and J.M. Cei, 1993. Revision of the tropical snake *Chironius* Fitzinger (Serpentes, Colubridae). *Museo Regionali di Scienzi Nationale. Torino. Monografie*. 13: 1-279 .

Franco, F.L. and T.G. Ferreira. 2003. Descrição de uma nova espécie de *Thamnodynastes* Wagler, 1830 (Serpentes, Colubridae) do nordeste brasileiro, com comentários sobre o gênero. *Phyllomedusa*, 1(2): 57-74.

Freitas, M.F. 1999. *Serpentes da Bahia e do Brasil*. Feira de Santana: ED, Dall. 80 p.

Freitas, M.A. 2003. *Serpentes Brasileiras*. Lauro de Freitas: Publisher. 160 p.

Freitas, M.A. 2011. *Répteis do Nordeste Brasileiro*. Pelotas: ED USEB. 130 p.

Freitas, M.A. and T.F.S. Silva. 2007. *A Herpetofauna das Caatingas e Áreas de Altitude do Nordeste Brasileiro.* Pelotas: USEB. 385 p.

Freitas, M.A., D.P.F. França and D. Veríssimo. 2011. First record of *Cercosaura eigenmanni* (Griffin, 1917) (Squamata: Gymnophthalmidae) for the state of Acre, Brazil. *Check List* 7(4):516-516.

Freitas, M.A., T.F.S. Silva and M.T.Rodrigues. 2007a. Geographic Distribution *Heterodactylus lundii*. *Herpetological Review* 38(3): 354-355.

Freitas, M. A., T.F.S. Silva and M.T. Rodrigues. 2007b. Geographic Distribution, *Chironius quadricarinatus*. *Herpetological Review* 38(3): 352-353.

Freitas, M. A., T.F.S. Silva and D. Loebman. 2010. *Bothrops jararaca*: altitudinal record. *Herpetological Review* 41(2): 234-235.

Giulietti, A.M and M.G.L. Wanderley. 1995. Mayacaceae; p. 724-725 *In* B. Stannard. (ed). *Flora of the Pico das Almas.* Kew: Royal Botanic Gardens,

Heyer, W.R., M.A. Donnelly, R.W.McDiarmid, L.C. Hayek and M.S. Foster. 1994. *Measuring and Monitoring Biological Diversity*. *Standard Methods for Amphibians.* Washington: Smithsonian Institution Press. 364 p.

Juncá, F.A. 2005. Anfíbios e Répteis; 337-356 p. *In* F.A. Juncá, L. Funch and W. Rocha (ed.). *Biodiversidade e Conservação da Chapada Diamantina*. Brasília: Ministério do Meio Ambiente (MMA).

Lopes, P.P. and J.N.C. Louzada. 2008. Besouros (Scarabaeidae e Histeridae); p.285-298 *In* F.A. Juncá, L. Funch and W. Rocha (ed.). *Biodiversidade e Conservação da Chapada Diamantina*. Brasília: Ministério do Meio Ambiente (MMA).

Lugli, L and F.A. Juncá. 2008. Répteis no Parque nacional da Chapada Diamantina e da APA Marimbas-Iraquara; p. 161-181. *In*: L.S. Funch, R.R. Funch, L.P. Queiroz (ed.). *Serra do Sincorá, Parque nacional da Chapada Diamantina*. Feira de Santana: ED-Radami.

Mott, T., M.T. Rodrigues, M.A. Freitas and T.F.S. Silva. 2008. A new species of *Amphisbaena* With a non Autotomic and Dorsally Tuberculate Blunt Tail From State of Bahia: Brazil (Squamata, Amphisbaenidae). *Journal of Herpetology*, 42(1): 172-175.

Nascimento, F.H.F., A.M. Giulietti, and L.P. Queiroz, 2010. Diversidade arbórea das florestas alto montanas no Sul da Chapada Diamantina, Bahia, Brasil. *Acta Botanica Brasílica* 24(3): 674-685

Oliveira, J.A and L.M. Pessôa. 2005. Mamíferos; p. 377-405 *In* F.A. Juncá, L. Funch and W. Rocha (ed.) *Biodiversidade e Conservação da Chapada Diamantina*. Brasília: Ministério do Meio Ambiente (MMA).

Queiroz, L.P. L.S Funch, and R.R. Funch 2008. Vegetação na Chapada Diamantina – Ênfase no Parque Nacional da Chapada Diamantina; p. 35-47 *In* L.S. Funch, R.R. Funch and L.P. Queiroz (org.). *Serra do Sincorá, Parque nacional da Chapada Diamantina.* Feira de Santana: ED-Radami.

Rodrigues, M.T. 1987. Sistematica, ecologia e zoogeografia dos *Tropidurus* do grupo *torquatus* ao sul do rio Amazonas (Sauria, Iguanidae). *Arquivos de Zoologia*, Brasil, 31(03) 105-230.

Rodrigues, M.T. 2003. Herpetofauna da Caatinga; p. 181-236 *In* M. Tabarelli and J.M.C. Silva (ed.). *Biodiversidade, ecologia e conservação da Caatinga*. Recife: Universidade Federal de Pernambuco.

Rodrigues, M.T., M.A. Freitas, T.F.S. Silva and C.E.V. Bertolotto. 2006. A new species of lizard genus *Enyalius* (Squamata, Leiosauridae) from the highlands of Chapada Diamantina, state of Bahia, Brazil, with a key to species. *Phyllomedusa*, 5(1) 11-24.

Rodrigues, M.T., J. Cassimiro, M.A. Freitas, and T.F.S. Silva, 2009a. A new microteiid lizardo of genus *Acratosaura* (Squammata: Gymnophtalmidae) from Serra do Sincorá, state of Bahia, Brazil. *Zootaxa*. 2013: 17-19.

Rodrigues, M.T., M.A. Freitas and T.F.S. Silva, 2009b A new species of earless lizard genus *Heterodactylus* (Squammata:Gymnophtalmidae) from the highlands of Chapada Diamantina, state of Bahia, Brazil.. *Journal of Herpetology*, 43: 605-611.

Santos, A.C.A and Caramaschi, E.P. 2008. Os peixes dos Marimbus; p. 129-141 *In* L.S. Funch, R.R. Funch and L.P. Queiroz (org.). *Serra do Sincorá, Parque nacional da Chapada Diamantina.* Feira de Santana: ED-Radami.

Received: September 2011
Accepted: January 2012
Published online: February 2012
Editorial responsibility: Philippe J.R. Kok

Appendix 1. Voucher specimens.

STATE OF BAHIA, MUNICIPALITY OF MUCUGÊ

Amphisbaena alba (MZUESC 7137 – 39); *Amphisbaena pretrei* (MCP 18181); *Amphisbaena uroxena* (MZUSP 95987 – 89); *Acratosaura mentalis* (MZUSP 74223 - 96894); *Acratosaura spinosa* (MZUSP 98088 – 98188); *Heterodactylus septentrionalis* (MZUSP 98087 – 95588); *Psilophtalmus* sp (MZUSP 96918 – 19); *Gymnodactylus vanzolinii* (MZUSP 68286); *Hemidactylus brasiliana* (LAPH/UEFS 366); *Enyalius erythroceneus* (MZUSP 95417 – 21); *Polychrus acutirostris* (MZUESC 6277 – 7130); *Mabuya heathi* (MZUESC - 7147); *Mabuya* sp (MZUESC 6290 – 94); *Ameiva ameiva* (MZUESC 4923 - 25); *Cnemidophorus ocellifer* (MZUESC 6284 – 89); *Eurolophosaurus* sp (MZUESC 6279 – 80); *Tropidurus hispidus* (MZUESC 5247 - 7140 – 7142); *Tropidurus mucujensis* (MZUSP - 56293); *Epictia borapeliotes* (MZUSP 15845 – 54), (MZUESC – 5083 – 84 – 6257); *Trilepida koppesi* (MZUESC - 6257); *Boa constrictor* (MZUESC – 5419); *Epicrates assisi* (MZUESC 5417); *Chironius* aff. *flavolineatus* (CZGB - 2759); *Chironius quadricarinatus* (MZUSP – 15049); *Drymarchon corais* (LAPH/UEFS - 1134); *Oxybelis aeneus* (MZUESC – 7135 – 7141 -7148); *Spilotes pullatus* (MZUESC - 5786), (LAPH/UEFS – 1135); *Tantilla* sp (MZUESC – 6251 – 54 - 6273); *Apostolepis cearensis* (MZUESC - 6271); *Boiruna sertaneja* (MZUESC-5324 - 7541); *Liophis maryellenae* (CZGB - 568); *Liophis poecilogyrus* (MZUESC – 4921 - 5132); *Oxyrhopus guibei* (MZUESC - 6255 – 7146); *Oxyrhopus trigeminus* (MZUESC - 5203); *Oxyrhopus rhombifer* (CZGB – 8853); *Philodryas aestiva* (MZUESC - 6328); *Philodryas olfersii* (4915 – 5085 – 87 - 6256 - 6260 – 68 – 6329 – 30 – 7121 - 22 – 7132 – 7134 – 7136 - 7149 – 50); *Philodryas patagoniensis* (MZUES - 5206); *Pseudoboa nigra* (MZUESC – 4922 – 5088 – 5205 – 6269 – 6272 – 7143 - 7540); *Sibynomorphus neuwiedi* (MZUESC – 6800); *Siphlophis leucocephalus* (MZUESC – 6258); *Taeniophallus* gr *occipitalis* (MCP – 18118); *Thamnodynastes* sp (MZUESC – 5418 – 5420 - 7128); *Tropidodryas striaticeps* (MZUFBA – 1380); *Xenodon merremii* (6256); *Micrurus* sp (MZUESC – 5136 – 5204 – 8170); *Bothropoides erythromelas* (MZUESC - 5131); *Bothropoides jararaca* (MZUESC – 5133 – 6270 - 6326 – 7129 – 7145); *Bothrops leucurus* (MZUESC – 5096 – 6259); *Crotalus durissus* (MZUESC – 5089 – 5094-95).